

Examining several of these very curiously figur'd bodies (which are commonly thought to be Stones form'd by some extraordinary *Plastick virtue latent* in the Earth it self) I took notice of these particulars:

First, that these figured bodies, or stones, were of very differing substances, as to hardness: some of Clay, some Marle, some soft Stone, almost of the hardness of those soft stones which Masons call Fire-stone, others as hard as Portland stone, others as hard as Marble, and some as hard as a Flint or Crystal.

Next, they were of very differing substances as to transparency and colour; some white, some almost black, some brown, some Metalline, or like Marchasites; some transparent like white Marble, others like flaw'd Crystal, some gray, some of divers colours; some radiated like these long *petrify'd drops*, which are commonly found at the *Peak*, and in other *subterraneous caverns*, which have a kind of pith in the middle.

Thirdly, that they were very different as to the manner of their outward figuration; for some of them seem'd to have been the substance that had fill'd the Shell of some kind of Shel-fish; others, to have been the substance that had contain'd or enwrapp'd one of those Shells, on both which, the perfect impressiion either of the inside or outside of such Shells seem'd to be left, but for the most part, those impressiions seem'd to be made by an imperfect or broken Shell, the great end or mouth of the Shell being always wanting, and oftentimes the little end, and sometimes half, and in some there were impressiions, just as if there had been holes broken in the figurating, imprinting or moulding Shell; some of them seem'd to be made by such a Shell very much brused or flaw'd, insomuch that one would verily have thought that very figur'd stone had been broken or brused whilst a gelly, as 'twere, and so hardned, but within in the grain of the stone, there appear'd not the least sign of any such bruse or breaking, but onely on the very uttermost superficies.

Fourthly, they were very different, as to their outward covering, some having the perfect Shell, both in figure, colour, and substance, sticking on upon its surface, and adhering to it, but might very easily be separated from it, and like other common *Cockle* or *Scolop-shells*, which some of them most accurately resembled, were very dissoluble in common *Vinegar*, others of them, especially those *Serpentine*, or *Helical stones* were cover'd or retained the shining or Pearl-colour'd substance of the inside of a Shel, which substance, on some parts of them, was exceeding thin, and might very easily be rubbed off; on other parts it was pretty thick, and retained a white coat, or flaky substance on the top, just like the out-sides of such Shells; some of them had very large pieces of the Shell very plainly sticking on to them, which were easily to be broken or flaked off by degrees: they likewise, some of them retain'd all along the surface of them very pretty kind of *figures*, such as are observ'd in the skulls of several kinds of living creatures, which *figures* were most curiously shap'd in the manner of leaves, and every one of them in the same Shell, exactly one like another, which I was able to discover plainly enough with my naked eye, but more perfectly and distinctly with my *Microscope*; all these

these *figures*, by breaking some of these stones, I found to be the *termini*, or boundings of certain *diaphragms*, or partitions, which seem'd to divide the cavity of the Shell into a multitude of very proportionate and regular *cells* or *caverns*, these *Diaphragms*, in many of them, I found very perfect and compleat, of a very distinct substance from that which fill'd the cavities, and exactly of the same kind with that which covered the outside, being for the most part whitish, or *mother-of-pearl* colour'd.

As for the cavities between those *Diaphragms*, I found some of them fill'd with Marle, and others with several kinds of stones, others, for the most part hollow, onely the whole cavity was usually covered over with a kind of *tartareous petrify'd* substance, which stuck about the sides, and was there shot into very curious regular Figures, just as *Tartar*, or other dissolv'd Salts are observ'd to stick and *crystallize* about the sides of the containing Vessels; or like those little *Diamants* which I before observ'd to have covered the vaulted cavity of a Flint; others had these cavities all lin'd with a kind of *metalline* or *marchasite-like* substance, which with a *Microscope* I could as plainly see most curiously and regularly figur'd, as I had done those in a Flint.

From all which, and several other particulars which I observ'd, I cannot but think, that all these, and most other kinds of stony bodies which are found thus strangely figur'd, do owe their formation and figuration, not to any kind of *Plastick virtue* inherent in the earth, but to the Shells of certain Shel-fishes, which, either by some Deluge, Inundation, Earthquake, or some such other means, came to be thrown to that place, and there to be fill'd with some kind of Mudd or Clay, or *petrifying Water*, or some other substance, which in tract of time has been settled together and hardned in those shelly moulds into those shap'd substances we now find them; that the great and thin end of these Shells by that Earthquake, or what ever other extraordinary cause it was that brought them thither, was broken off; and that many others were otherwise broken, brused and disfigur'd; that these Shells which are thus *spirallied* and separated with *Diaphragms*, were some kind of *Nautili* or *Porcelane shells*; and that others were shells of *Cockles*, *Muscles*, *Periwinkles*, *Scolops*, &c. of various sorts; that these Shells in many, from the particular nature of the containing or enclos'd Earth, or some other cause, have in tract of time rotted and mouldred away, and onely left their impressiions, both on the containing and contained substances; and so left them pretty loose one within another, so that they may be easily separated by a knock or two of a Hammer. That others of these Shells, according to the nature of the substances adjacent to them, have, by a long continuance in that posture, been *petrify'd* and turn'd into the nature of stone, just as I even now observ'd several sorts of Wood to be. That oftentimes the Shell may be found with one kind of substance within, and quite another without, having, perhaps, been fill'd in one place, and afterwards translated to another, which I have very frequently observ'd in *Cockle*, *Muscle*, *Periwinkle*, and other shells, which I have found by the Sea side. Nay, further, that some parts of the same Shell may be fill'd in one place, and some